

10/521518

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/521,518
Source: PC
Date Processed by STIC: 5/24/06

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/521,518

CRF Edit Date: 5/24/06
Edited by: LR

___ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

___ Corrected the SEQ ID NO. Sequence numbers edited were:

___ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

___ Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers

___ Inserted mandatory headings/numeric identifiers, specifically:

___ Moved responses to same line as heading/numeric identifier, specifically:

✓ Other:
corrected amino acid numbering in Seqs. 19,21,25
corrected <1407, <1417 lines



PCT

RAW SEQUENCE LISTING

DATE: 05/24/2006

PATENT APPLICATION: US/10/521,518

TIME: 13:48:28

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\05242006\J521518.raw

3 <110> APPLICANT: Expressive Research B.V.
 5 <120> TITLE OF INVENTION: Modulating developmental pathways in plants
 7 <130> FILE REFERENCE: P59845PC00
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/521,518
 C--> 9 <141> CURRENT FILING DATE: 2005-01-18
 9 <150> PRIOR APPLICATION NUMBER: PCT/NL03/00524
 10 <151> PRIOR FILING DATE: 2003-07-17
 12 <150> PRIOR APPLICATION NUMBER: EP 02077908.8
 13 <151> PRIOR FILING DATE: 2002-07-17
 15 <160> NUMBER OF SEQ ID NOS: 110
 17 <170> SOFTWARE: PatentIn version 3.2
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 227
 21 <212> TYPE: PRT
 22 <213> ORGANISM: Arabidopsis thaliana
 24 <400> SEQUENCE: 1
 26 Met Ala Ala Glu Gln Pro Leu Asn Gly Ala Phe Tyr Gly Pro Ser Val
 27 1 5 10 15
 30 Pro Pro Pro Ala Pro Lys Gly Tyr Tyr Arg Arg Gly His Gly Arg Gly
 31 20 25 30
 34 Cys Gly Cys Cys Leu Leu Ser Leu Phe Val Lys Val Ile Ile Ser Leu
 35 35 40 45
 38 Ile Val Ile Leu Gly Val Ala Leu Ile Phe Trp Leu Ile Val Arg
 39 50 55 60
 42 Pro Arg Ala Ile Lys Phe His Val Thr Asp Ala Ser Leu Thr Arg Phe
 43 65 70 75 80
 46 Asp His Thr Ser Pro Asp Asn Ile Leu Arg Tyr Asn Leu Ala Leu Thr
 47 85 90 95
 50 Val Pro Val Arg Asn Pro Asn Lys Arg Ile Gly Leu Tyr Tyr Asp Arg
 51 100 105 110
 54 Ile Glu Ala His Ala Tyr Tyr Glu Gly Lys Arg Phe Ser Thr Ile Thr
 55 115 120 125
 58 Leu Thr Pro Phe Tyr Gln Gly His Lys Asn Thr Thr Val Leu Thr Pro
 59 130 135 140
 62 Thr Phe Gln Gly Gln Asn Leu Val Ile Phe Asn Ala Gly Gln Ser Arg
 63 145 150 155 160
 66 Thr Leu Asn Ala Glu Arg Ile Ser Gly Val Tyr Asn Ile Glu Ile Lys
 67 165 170 175
 70 Phe Arg Leu Arg Val Arg Phe Lys Leu Gly Asp Leu Lys Phe Arg Arg
 71 180 185 190
 74 Ile Lys Pro Lys Val Asp Cys Asp Asp Leu Arg Leu Pro Leu Ser Thr
 75 195 200 205
 78 Ser Asn Gly Thr Thr Thr Thr Ser Thr Val Phe Pro Ile Lys Cys Asp

RAW SEQUENCE LISTING

DATE: 05/24/2006

PATENT APPLICATION: US/10/521,518

TIME: 13:48:28

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\05242006\J521518.raw

```

79      210      215      220
82 Phe Asp Phe
83 225
86 <210> SEQ ID NO: 2
87 <211> LENGTH: 416
88 <212> TYPE: PRT
89 <213> ORGANISM: Arabidopsis thaliana
91 <400> SEQUENCE: 2
93 Met Val Arg Ser Asn Asp Val Lys Phe Gln Val Tyr Asp Ala Glu Leu
94 1      5      10      15
97 Thr His Phe Asp Leu Glu Ser Asn Asn Asn Leu Gln Tyr Ser Leu Ser
98      20      25      30
101 Leu Asn Leu Ser Ile Arg Asn Ser Lys Ser Ser Ile Gly Ile His Tyr
102      35      40      45
105 Asp Arg Phe Glu Ala Thr Val Tyr Tyr Met Asn Gln Arg Leu Gly Ala
106      50      55      60
109 Val Pro Met Pro Leu Phe Tyr Leu Gly Ser Lys Asn Thr Met Leu Leu
110 65      70      75      80
113 Arg Ala Leu Phe Glu Gly Gln Thr Leu Val Leu Leu Lys Gly Asn Glu
114      85      90      95
117 Arg Lys Lys Phe Glu Asp Asp Gln Lys Thr Gly Val Tyr Arg Ile Asp
118      100     105     110
121 Val Lys Leu Ser Ile Asn Phe Arg Val Met Val Leu His Leu Val Thr
122      115     120     125
125 Trp Pro Met Lys Pro Val Val Arg Cys His Leu Lys Ile Pro Leu Ala
126      130     135     140
129 Leu Gly Ser Ser Asn Ser Thr Gly Gly His Lys Lys Met Leu Leu Ile
130 145     150     155     160
133 Gly Gln Leu Val Lys Asp Thr Ser Ala Asn Leu Arg Glu Ala Ser Glu
134      165     170     175
137 Thr Asp His Arg Arg Asp Val Ala Gln Ser Lys Lys Ile Ala Asp Ala
138      180     185     190
141 Lys Leu Ala Lys Asp Phe Glu Ala Ala Leu Lys Glu Phe Gln Lys Ala
142      195     200     205
145 Gln His Ile Thr Val Glu Arg Glu Thr Ser Tyr Ile Pro Phe Asp Pro
146      210     215     220
149 Lys Gly Ser Phe Ser Ser Glu Val Asp Ile Gly Tyr Asp Arg Ser
150 225     230     235     240
153 Gln Glu Gln Arg Val Leu Met Glu Ser Arg Arg Gln Glu Ile Val Leu
154      245     250     255
157 Leu Asp Asn Glu Ile Ser Leu Asn Glu Ala Arg Ile Glu Ala Arg Glu
158      260     265     270
161 Gln Gly Ile Gln Glu Val Lys His Gln Ile Ser Glu Val Met Glu Met
162      275     280     285
165 Phe Lys Asp Leu Ala Val Met Val Asp His Gln Gly Thr Ile Asp Asp
166      290     295     300
169 Ile Asp Glu Lys Ile Asp Asn Leu Arg Ser Ala Ala Ala Gln Gly Lys
170 305     310     315     320
173 Ser His Leu Val Lys Ala Ser Asn Thr Gln Gly Ser Asn Ser Ser Leu

```

RAW SEQUENCE LISTING

DATE: 05/24/2006

PATENT APPLICATION: US/10/521,518

TIME: 13:48:28

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\05242006\J521518.raw

```

174          325          330          335
177 Leu Phe Ser Cys Ser Leu Leu Leu Phe Phe Phe Leu Ser Gly Asp Leu
178          340          345          350
181 Cys Arg Cys Val Cys Val Gly Ser Glu Asn Pro Arg Leu Asn Pro Thr
182          355          360          365
185 Arg Arg Lys Ala Trp Cys Glu Glu Glu Asp Glu Glu Gln Arg Lys Lys
186          370          375          380
189 Gln Gln Lys Lys Lys Thr Met Ser Glu Lys Arg Arg Arg Glu Glu Lys
190 385          390          395          400
193 Lys Val Asn Lys Pro Asn Gly Phe Val Phe Cys Val Leu Gly His Lys
194          405          410          415
197 <210> SEQ ID NO: 3
198 <211> LENGTH: 1634
199 <212> TYPE: DNA
200 <213> ORGANISM: Arabidopsis thaliana
203 <220> FEATURE:
204 <221> NAME/KEY: CDS
205 <222> LOCATION: (501)..(563)
206 <223> OTHER INFORMATION: signal sequence (exon 1)
208 <220> FEATURE:
209 <221> NAME/KEY: CDS
210 <222> LOCATION: (655)..(708)
211 <223> OTHER INFORMATION: propeptide (exon 2)
213 <220> FEATURE:
214 <221> NAME/KEY: CDS
215 <222> LOCATION: (797)..(856)
216 <223> OTHER INFORMATION: propeptide (exon 3)
218 <220> FEATURE:
219 <221> NAME/KEY: CDS
220 <222> LOCATION: (955)..(1131)
221 <223> OTHER INFORMATION: conserved cysteine motif (exon 4)
223 <400> SEQUENCE: 3
224 attaaacgcc aaacactaca tctgtgtttt cgaacaatat tgcgtctgcg tttccttcat      60
226 ctatctctct cagtgtcaca atgtctgaac taagagacag ctgtaaacta tcattaagac      120
228 ataaactacc aaagtatcaa gctaattgtaa aaattactct catttccacg taacaaattg      180
230 agtttagctta agatattagt gaaactaggt ttgaattttc ttcttcttct tccatgcac      240
232 ctccgaaaaa agggaaaccaa tcaaaactgt ttgcatatca aactccaaca ctttacagca      300
234 aatgcaatct ataactctgtg atttatccaa taaaaacctg tgatttatgt ttggctccag      360
236 cgatgaaagt ctatgcatgt gatctctatc caacatgagt aattgttcag aaaataaaaa      420
238 gtagctgaaa tgtatctata taaagaatca tccacaagta ctattttcac acactacttc      480
240 aaaatcacta ctcaagaaat atg aag aag atg aat gtg gtg gct ttt gtt acg      533
241          Met Lys Lys Met Asn Val Val Ala Phe Val Thr
242          1          5          10
244 ctg atc atc tct ttt ctt ctg ctt tct cag gtaaactgtt aaaaccattt      583
245 Leu Ile Ile Ser Phe Leu Leu Leu Ser Gln
246          15          20
248 tcaagactac cttttctcta tttcagacaa accaaagtaa aacaatgaaa aatctctctg      643
250 gtctttcata g gta ctt gca gag ttg tca tca tcc agc aac aat gaa act      693
251          Val Leu Ala Glu Leu Ser Ser Ser Ser Asn Asn Glu Thr

```

RAW SEQUENCE LISTING

DATE: 05/24/2006

PATENT APPLICATION: US/10/521,518

TIME: 13:48:28

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\05242006\J521518.raw

```

252                               25                               30
254 tcc tct gtt tct cag gtaagagtga tacaaaaaca tactaaacaa acttttcaaga      748
255 Ser Ser Val Ser Gln
256 35
258 gagtaatata taaggaaatg ttggcttctt ttttttggtg ctaatcag acg aat gac      805
259                               Thr Asn Asp
260                               40
262 gag aac caa act gcg gcg ttt aag aga aca tac cac cat cgt cca aga      853
263 Glu Asn Gln Thr Ala Ala Phe Lys Arg Thr Tyr His His Arg Pro Arg
264          45          50          55
266 atc agttagtcta ctctttcaac actctaattc ctttggttcta agtatttttt      906
267 Ile
270 ttgcccccca caaccttttt tttattaaat gagccaattt ttatagat tgt ggg cat      963
271                               Cys Gly His
272                               60
274 gca tgc gca agg aga tgc agt aag aca tcg agg aag aaa gtt tgt cac      1011
275 Ala Cys Ala Arg Arg Cys Ser Lys Thr Ser Arg Lys Lys Val Cys His
276          65          70          75
278 aga gcc tgt gga agt tgt tgt gcc aag tgt cag tgt gtg ccg ccg gga      1059
279 Arg Ala Cys Gly Ser Cys Cys Ala Lys Cys Gln Cys Val Pro Pro Gly
280          80          85          90
282 acc tcc ggc aac aca gca tca tgt cct tgc tac gcc agt atc cgt aca      1107
283 Thr Ser Gly Asn Thr Ala Ser Cys Pro Cys Tyr Ala Ser Ile Arg Thr
284 95          100          105          110
286 cat ggc aat aaa ctc aaa tgt cct taaaagactt ctcattttctc aactatagtc      1161
287 His Gly Asn Lys Leu Lys Cys Pro
288          115
290 tcatcttctg attatgtttc ttcttttggt atgttgcatg tgtgatgtgt gagcttatta      1221
292 ttatgttgat tgttgacata attcaactat ataatttgta tcgattccga ataataagat      1281
294 gagtgatttt attggctatt aagttttttt tttttttttt tgggcacaat ggctattaag      1341
296 ttttaaacad ctgattttat tggttacaaa aaacaacaaa gtttcatttt catattaaca      1401
298 caaaatctcc atacatatta ccaaaccaaa aaaatacaca aggggggagag agaccaacgg      1461
300 ttcttggttc agagtttgca tcttgtttga gccgtcacccg tttcttagac ttaacagcca      1521
302 caacaccttt ataaagcttc acgcgatcct tcaacgcacg tcgccgaggc cgagccacct      1581
304 tattgtttgg atcaaacaac aaaacttctt caaacgcatt caatgccaaa ggc      1634
307 <210> SEQ ID NO: 4
308 <211> LENGTH: 118
309 <212> TYPE: PRT
310 <213> ORGANISM: Arabidopsis thaliana
312 <400> SEQUENCE: 4
314 Met Lys Lys Met Asn Val Val Ala Phe Val Thr Leu Ile Ile Ser Phe
315 1          5          10          15
318 Leu Leu Leu Ser Gln Val Leu Ala Glu Leu Ser Ser Ser Ser Asn Asn
319          20          25          30
322 Glu Thr Ser Ser Val Ser Gln Thr Asn Asp Glu Asn Gln Thr Ala Ala
323          35          40          45
326 Phe Lys Arg Thr Tyr His His Arg Pro Arg Ile Cys Gly His Ala Cys
327          50          55          60
330 Ala Arg Arg Cys Ser Lys Thr Ser Arg Lys Lys Val Cys His Arg Ala

```

RAW SEQUENCE LISTING

DATE: 05/24/2006

PATENT APPLICATION: US/10/521,518

TIME: 13:48:28

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\05242006\J521518.raw

```

331 65              70              75              80
334 Cys Gly Ser Cys Cys Ala Lys Cys Gln Cys Val Pro Pro Gly Thr Ser
335              85              90              95
338 Gly Asn Thr Ala Ser Cys Pro Cys Tyr Ala Ser Ile Arg Thr His Gly
339              100              105              110
342 Asn Lys Leu Lys Cys Pro
343              115
346 <210> SEQ ID NO: 5
347 <211> LENGTH: 1453
348 <212> TYPE: DNA
349 <213> ORGANISM: Arabidopsis thaliana
352 <220> FEATURE:
353 <221> NAME/KEY: CDS
354 <222> LOCATION: (501)..(533)
355 <223> OTHER INFORMATION: signal peptide (exon 1)
357 <220> FEATURE:
358 <221> NAME/KEY: CDS
359 <222> LOCATION: (664)..(691)
360 <223> OTHER INFORMATION: propeptide (exon 2)
362 <220> FEATURE:
363 <221> NAME/KEY: CDS
364 <222> LOCATION: (772)..(950)
365 <223> OTHER INFORMATION: conserved cysteine motif (exon 3)
367 <400> SEQUENCE: 5
368 gaaaaaaaga agaaaagata atgggtccgta ttaatatagt tgaaaacttg aaactacttt      60
370 ttagtttgta tataatacag tagactaggg atccagttga gtttctttct ttattttgag      120
372 tttgtgttta tgtttgattt tacgttttta tatgtaaata agatatttta cgaattatgg      180
374 ttttatttgg gtagaagttg tagaatgact taaacaatca agtggcagaa tgagatatat      240
376 aaagtaatat aatatatgta ccgttattaa cttattgtac atgtgaatga ggaagcttac      300
378 acacacacac cttctataaa tagctgacaa aactggttgt tacacacaac acattcataa      360
380 atctctcaaa gtaagaacta agagctttac tacagtccta ctctctacac atcttctctc      420
382 tctctcaaga gctagtcatg gccaaactca taacttcttt tctcttactc acaattttat      480
384 tcactttcgt ttgtctcact atg tca aaa gaa gct gag tac cat cca gaa agt      533
385              Met Ser Lys Glu Ala Glu Tyr His Pro Glu Ser
386              1              5              10
388 gtaagttttt attttttggt aaaatagaaa gtgtaagttt tataattcat tcaattgttt      593
390 ttgcctttcc ctttctattt attgctataa atctaatacc cgcgttaaaa tttgttttga      653
392 aattaaacag tat gga cca gga agt ctg aaa tca tac c gtaagtaaaa      701
393              Tyr Gly Pro Gly Ser Leu Lys Ser Tyr
394              15              20
396 acttcttctt cttttatgaa tcttgtttct tattatatat caaataaaaa ctcgattatc      761
398 atgattgcag aa tgt gga gga caa tgc aca agg aga tgt agc aac aca      809
399              Gln Cys Gly Gly Gln Cys Thr Arg Arg Cys Ser Asn Thr
400              25              30
402 aag tat cat aag cca tgc atg ttc ttc tgc caa aag tgt tgt gct aaa      857
403 Lys Tyr His Lys Pro Cys Met Phe Phe Cys Gln Lys Cys Cys Ala Lys
404              35              40              45
406 tgc ctt tgt gtc cct cca ggc acg tac ggc aac aaa caa gtg tgt cct      905
407 Cys Leu Cys Val Pro Pro Gly Thr Tyr Gly Asn Lys Gln Val Cys Pro

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/521,518

DATE: 05/24/2006
TIME: 13:48:29

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05242006\J521518.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:31; Xaa Pos. 2,4,7,8,9,10,11,12,13,14,16,17,18,20,21,24,25,27,31,34,36

Seq#:31; Xaa Pos. 37,38,39,41,44,45,46,47,48,49,50,52,53

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:25; Line(s) 1786

VERIFICATION SUMMARY

DATE: 05/24/2006

PATENT APPLICATION: US/10/521,518

TIME: 13:48:29

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\05242006\J521518.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:517 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 7
L:1047 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 15
L:1311 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 19
L:2187 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
M:341 Repeated in SeqNo=31